#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Atty. Docket: SHANI=1A

In re Application of:

Haim SHANI et al.

Appln. No.: 10/766,329

Appln. No.: 10/766,329

Filed: January 29, 2004

For: NON-INVASIVE METHOD AND APPARATUS TO DETECT AND MONITOR EARLY MEDICAL SHOCK, AND RELATED CONDITIONS

Atty. Docket: SHANI=1A

May 200: 1250

Examiner: E. D. Berhanu

May 20, 2009

May 20, 2009

# REQUEST FOR EXPEDITED ISSUANCE OF CERTIFICATE OF CORRECTION UNDER 37 C.F.R. §1.322

Honorable Commissioner for Patents U.S. Patent and Trademark Office ATTN: Certificate of Correction Branch P.O. Box 1450 Alexandria, VA 22313-1450

#### Sir:

In checking over the printed copy of the above-identified patent, we have found the following error that is entirely the fault of the Patent and Trademark Office. It is respectfully requested that this error be corrected in accordance with 37 CFR §1.322(a) and that the issuance of the certificate be expedited in accordance with MPEP §1480.01. The error to be corrected is listed below.

The PTO erred by publishing a typographic error of a single word at line 29 of Claim 1. In Claim 1, at col. 17, lines 29, the phrase "to cause the capillaries to proceed to full with blood," should read "to cause the capillaries to proceed to fill with blood". The word "full" should be changed

In re of U.S. Patent 7,483,733

to read "fill". In the last accepted amendment, filed on August 5, 2008, Claim 1 correctly used the word "fill."

Therefore, the error in the patent publication was on the part of the PTO. Attached herewith is a copy of the Certificate of Correction form.

In accordance with MPEP \$1480.01, this certificate is entitled to expedited issuance as the error is attributable solely to the Patent and Trademark Office. As proof that unequivocally supports patentee's assertions, attached hereto is the following supporting documentation:

A full copy of the amendment filed on August 5, 2008, which shows that applicant's Claim 1 did not have this typographical error.

Accordingly, granting of this request and issuance of the attached certificate of correction on an expedited basis are earnestly solicited.

Respectfully submitted,

BROWDY AND NEIMARK, P.L.L.C.
Attorneys for Applicant(s)

By /rlb/
Roger L. Browdy
Registration No. 25,618

RLB: jhw

Telephone No.: (202) 628-5197 Facsimile No.: (202) 737-3528

G:\BN\C\cohn\Shani1A\pto\2009-05-18CertCor322PTOFault.doc

Electronic Acknowledgement Receipt							
EFS ID:	3734059						
Application Number:	10766329						
International Application Number:							
Confirmation Number:	1250						
Title of Invention:	Non-invasive method and apparatus to detect and monitor early medical shock, and related conditions						
First Named Inventor/Applicant Name:	Haim Shani						
Customer Number:	1444						
Filer:	Roger Lowen Browdy/Ronni Jillions						
Filer Authorized By:	Roger Lowen Browdy						
Attorney Docket Number:	SHANI1A						
Receipt Date:	05-AUG-2008						
Filing Date:	29-JAN-2004						
Time Stamp:	18:35:13						
Application Type:	Utility under 35 USC 111(a)						
Payment information:							

Submitted with Payment	yes					
Payment Type	Credit Card					
Payment was successfully received in RAM	\$295					
RAM confirmation Number	3468					
Deposit Account						
Authorized User						

## File Listing:

Document Number	Document Description	File Name	File Size(Bytes) /Message Digest	Multi Part /.zip	Pages (if appl.)
--------------------	----------------------	-----------	-------------------------------------	---------------------	---------------------

1		2008-08-05AmendAsFiledS	185218	yes	23		
'		HANI1A.pdf	f91de770cc7d69040ab7480c5a2644a4 766c8a99	y <del>c</del> o	23		
	Multip	.zip description	description				
	Document De	Start	E	End			
	Miscellaneous In	1	1				
	Amendment - After N	2	2 2				
	Clain	3	18				
	Applicant Arguments/Remark	19	23				
Warnings:							
Information:							
2	Terminal Disclaimer Filed	2008-08-05TermDiscl.pdf	58412	no	3		
_	Tommar Biodiannoi Tilou	2000 00 00 101111210011121	422f2988e2f5b1c5d30af89d58a97814a f15d17e	,,,,	, and the second		
Warnings:							
Information:							
3	Fee Worksheet (PTO-06)	fee-info.pdf	8350	no	2		
	1 00 11011011001 (1 10-00)	ico imo.pui	ae5198960d08282b892e9e08a33362d 6f7f44087	110			
Warnings:							
Information:							
		Total Files Size (in bytes)	25				

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

## New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

#### National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

#### New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of:					Art Unit: 3768											
Application No.: 10/766,329 Confirmation No.: 1250							E	Examiner: E.D. Berhanu								
Filing Date: January 29, 2004								٧	Washington, D.C.							
									А	ntty.'s Do	ocket: SH <b>AN</b>	NI=1a				
For: N	ON-IN	VASIVE METHO	D AND AP	PARA	TUS TO DET	ECT AND MC	ONITOR		D	ate: Au	igust 5, 2008	3				
Custor Rando 401 Du	ner Se Iph Bu Ilany S	ind Trademark O rvice Window ilding, <b>Mail Stop</b> street 'A 22314		<u>MEN</u>	IT_											
Sir:																
[XX]	Small No ad	nerewith is a [ X ] Entity Status: Ap ditional fee is req se has been calcu	oplicant(s) c juired.	laim	small entity sta				pplication.							
		(Col. 1)			(Col. 2)	(Col. 3)			SMAL	L ENTIT	-Y	_	OTHER THAN SMALL ENTITY			
		CLAIMS REMAINING AFTER AMENDMENT		PR	GHEST NO. EVIOUSLY PAID FOR	PRESENT EXTRA EQUALS		F	RATE	ADI	DITIO <b>NA</b> L FEE	OR		RATE	ADDITIONAL FEE	
TOTAL	-	*	MINUS	**	20	0	_   >	<b>(</b>	25	\$		4	х	50	\$	
INDEP		*	MINUS	***	3	0	<u> </u>		105	\$		-	X	210	\$	
FIRST	PRES	ENTATION OF M	MULTIPLE I	JEP.	CLAIM		ADDITIONA		185 F TOT <b>A</b> L	\$		OR	+	370 TOTAL	\$	
<ul> <li>If the "Highest Number Previously Paid for" IN THIS SPACE is less than 3, write "3" in this space.</li> <li>The "Highest Number Previously Paid For" (total or independent) is the highest number found from the equivalent box in Col. 1 of a prior amendment of the number of claims originally filed.</li> <li>[XX] Conditional Petition for Extension of Time         If any extension of time for a response is required, applicant requests that this be considered a petition therefor.     </li> </ul>																
[XX]	lt is he	ereby petitioned for	or an extens	sion c	f time in accor	dance with 37	7 CFR 1.136(a	a). T	he approp	riate fee	required by	37 CFR 1	.17 is	calculated a	s shown below:	
Small Entity Response Filed Within  [ ] First - \$ 60.00  [XX] Second - \$ 230.00  [ ] Third - \$ 525.00  [ ] Fourth - \$820.00  Month After Time Period Set								Other Than Small Entity Response Filed Within  [ ] First - \$ 120.00  [ ] Second - \$ 460.00  [ ] Third - \$ 1050.00  [ ] Fourth - \$ 1640.00  Month After Time Period Set								
	[ ]	Less fees (\$	) alrea	dy pa	id for mor	nth(s) extensio	on of time on									
Payment in the amount of \$ 230.00 will be made using the online filing system.  [XX] Payment in the amount of \$ 230.00 will be made using the online filing system.  [] A check in the amount of \$																
												WDY AND neys for A		MARK, P.L.L. nt(s)	C.	
Facsim Teleph		(202) 737-3528 (202) 628-5197									By: _	<u>/Ronni</u> Ronni S. J Reg. No. 3	S. Jilli illions	,	_	

#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Atty. Docket: SHANI=1A

In re Application of:

Haim SHANI et al.

Art Unit: 3768

Appln. No.: 10/766,329

Filed: January 29, 2004

For: NON-INVASIVE METHOD AND
APPARATUS TO DETECT AND
MONITOR EARLY MEDICAL
SHOCK, AND RELATED CONDITIONS

#### **AMENDMENT**

Honorable Commissioner for Patents U.S. Patent and Trademark Office Randolph Building, Mail Stop Amendments 401 Dulany Street Alexandria, VA 22314

Sir:

In response to the Office Action of **March 6, 2008**, the period for response having been extended by the concurrent filing of a request for two-month extension of time, and payment of the appropriate fee, please amend as follows:

**Amendments to the Claims** are reflected in the listing of claims that begins on page 2 of this paper.

**Remarks/Arguments** begin on page 18 of this paper.

Amdt. dated August 5, 2008

Reply to Office Action of March 6, 2008

## **Amendments to the Claims**:

This listing of the claims will replace all prior versions, and listings, of claims in the application:

## **Listing of Claims**:

1. (Original) A diagnostic medical instrument adapted to determine whether a patient is suffering from a pre-shock, shock or shock-related condition, the instrument being used in a capillary filling time (CFT) test procedure in which a skin area of the patient overlying blood-filled capillaries normally imparting to the skin a pink color is depressed by a pressure, which is sufficient to expel blood from the capillaries while maintaining normal flow in the veins, said pressure causing the skin to blanch until the skin exhibits a white color, the said pressure being released when a point of maximum blanching is reached to permit blood to flow back to the capillaries at a rate that depends on the condition of the patient to cause the skin to regain its natural pink color; said instrument comprising:

I. means including a color sensor trained on the skin area when exposed to light to generate a signal having a magnitude which is a function of light reflected by the skin area whose intensity depends on the natural color of the skin area, wherein the color sensor means includes means to illuminate the skin area with non-modulated light from a light source, and a light reflected therefrom is intercepted by a photodetector, which yields a signal that depends on an existing skin color;

II. means responsive to said signal before pressure is applied to the skin area to determine its natural pink color to establish a reference base for the test to follow; and

Reply to Office Action of March 6, 2008

Ill. means responsive to said signal when pressure is applied to said skin during the test to measure the time elapsing from a starting point in time when the depressed skin is at its maximum blanching value of white, and the pressure applied thereon is then released to cause the capillaries to proceed to fill with blood, to a final point in time when the skin recovers its natural pink color as established by the reference base, whereby the CFT measurement is an index to whether the patient is suffering from a shock-related condition, and to the severity of this condition.

- 2. **(Original)** An instrument as set forth in claim 1, further including a temperature sensor responsive to heat radiating from the skin area to generate a temperature signal that reflects the existing temperature of the skin area, and means to factor into the CFT measurement the temperature, signal to compensate the CFT measurement for the effect of skin temperature thereon.
- 3. **(Original)** An instrument as in claim 1, wherein the color sensor means includes a video camera responsive to light reflected from the skin area to yield an image signal whose character depends on an existing skin color.
- 4. **(Original)** An instrument as set forth in claim 1, further including means to apply pressure to said skin area and means to control the magnitude and/or duration of the pressure so as to apply to the skin area the minimum amount of pressure necessary to cause the skin to exhibit a white color.

Reply to Office Action of March 6, 2008

5. **(Currently Amended)** An instrument as in claim 2, in which the temperature sensor is a thermometer <u>capable of being</u> placed on the skin area to produce a signal whose magnitude depends on the existing skin temperature.

6. **(Original)** A method for the diagnosis of a shock-related state in a patient by measuring the filling time of blood vessels subjacent to skin area of the patient, comprising the steps of: illuminating the area which is to be gauged for color with a nonmodulated light from a light source, filtering out background noises to obtain a baseline measurement, and determining the filling time of blood vessels in said area by comparison of a current color of the area with the base-line measurement.

- 7. **(Currently Amended)** A method according to claim 6, comprising:
- i) illuminating the area having an original color with non-modulated light from a light source;
- ii) intercepting light reflected from the area with a light sensor, said light sensor producing a first signal having a magnitude which corresponds to the color of said area, said color representing the level of reflection;
- iii) filtering said first signal for rejecting unwanted signals derived from interfering light and producing a second signal whose amplitude is proportional to the amplitude of said filtered first signal;

Reply to Office Action of March 6, 2008

iv) storing the amplitude value of said second signal which corresponds to said original color;

v) applying a pressure on said area, the magnitude of said pressure and its duration is being sufficient to expel blood from said blood vessels to blanch the skin, up to maximum blanching and whitening of said area; and

vi) measuring the filling time of blood vessels by rapidly releasing said pressure and subsequently measuring the amplitude of the second signal and displaying the total period of time from maximum whitening at the time of pressure release until the amplitude of said second electrical signal is essentially similar to said stored amplitude value, said total period of time being indicative of a shock-related state in said patient and its severity.

8. **(Currently Amended)** A method according to claim 7, further comprising:

i) sampling the amplitude value of the second electrical signal at a predetermined rate during said measurement and storing said sampled values; and

ii) extrapolating the <u>capillary blood vessel</u> filling time by processing at least a portion of said stored values whenever the rate of change of the <u>capillary blood vessel</u> filling time remains substantially insensitive to the magnitude and/or duration of the applied pressure.

Amdt. dated August 5, 2008

Reply to Office Action of March 6, 2008

9. **(Original)** A method according to claim 8, wherein an alert signal is provided whenever the strength and/or duration of the applied pressure be insufficient for obtaining maximum whitening.

10. **(Original)** A method according to claim 7, wherein the pressure is applied and released automatically.

11. **(Currently Amended)** A method according to claim 7, further including the step of verification of the measurement by displaying a graphical representation of the measured <u>capillary blood vessel</u> filling time.

12. **(Currently Amended)** A method according to claim 7, further including the steps of:

i) repeating the measurement of the <u>capillary blood vessel</u> filling time at different time intervals;

- ii) storing the values of all measurements; and
- iii) displaying a graphical representation of the measured filling times as a function of time, thereby obtaining a derivative of the <u>capillary blood vessel</u> filling time on time d[CFT]/d[t], said derivative being an indication related to the recovery of the patient from an actual or pre-shock state.

Reply to Office Action of March 6, 2008

13. **(Original)** A method according to claim 6, wherein the blood vessels are capillaries.

14. **(Original)** A method according to claim 7, wherein the light is emitted from a LED.

15. **(Original)** A method according to claim 7, wherein the light sensor is a photodetector selected from the group consisting of a photo-diode, a photo-transistor, a photoresistor and a photoelectric cell.

16. **(Original)** A method according to claim 7, wherein the second electrical signal is produced by integrating the absolute value of the filtered signal.

17. **(Original)** A method according to claim 7, wherein pressure is applied by means of a rigid transducer containing a light source and a light sensor, said transducer being provided with a transparent wall that engages an appendage of the patient, a controlled force being imposed on said rigid transducer toward the surface of said appendage.

18. **(Original)** A method according to claim 17, wherein the applied pressure is controlled by means of a motor arranged to apply a force on said transducer.

Appln. No. 10/766,329 Amdt. dated August 5, 2008 Reply to Office Action of March 6, 2008

- 19. **(Original)** A method according to claim 17, wherein the applied pressure is controlled by means of an electromagnet applying a force on said transducer.
- 20. **(Original)** A method according to claim 7, further comprising the step of correcting said amplitude of said second signal to compensate for effects that may be caused by skin movement after said releasing of pressure.
- 21. **(Original)** Apparatus for the diagnosis of a shock-related state in a patient and of recovery of a patient therefrom comprising:
- i) means for illuminating a skin area of the patient to be gauged for color with a light from a light source, wherein said light is non-modulated;
- ii) means for filtering out background noises and light to obtain a base-line measurement; and
- iii) means for comparing the color of the skin area with the base-line measurement, thereby determining the filling time of blood vessels in said area.
- 22. **(Original)** Apparatus for the diagnosis of a shock-related state in a patient and of recovery of a patient therefrom, comprising:
- i) a light source for illuminating an area of the patient's skin overlying blood vessels, said area having an original color, wherein said light is substantially non-modulated;

Appln. No. 10/766,329 Amdt. dated August 5, 2008 Reply to Office Action of March 6, 2008

- ii) a light sensor for intercepting light reflected from said area and producing a first signal having a magnitude which corresponds to the color of said area, said color representing the level of reflection from blood vessels subjacent said area;
- iii) a filter for filtering said first electrical signal and for rejecting unwanted electrical signals originating in interfering light, and for producing a second signal, whose amplitude is proportional to the amplitude of said filtered first signal;
- iv) means for storing the amplitude value of said second signal which corresponds to said original color;
- v) a transducer for applying pressure on said area, and for obtaining an amplitude of the second signal which corresponds to maximum whitening of said area;
- vi) a processor for processing data collected by said transducer and for measuring the filling time of blood vessels after releasing said pressure; and vii) means for graphically displaying said processed data.
- 23. **(Original)** Apparatus according to claim 22, further including means for sampling the amplitude value of the second electrical signal at a predetermined rate during the measurement and for storing said sampled values.
- 24. **(Original)** Apparatus according to claim 23, further comprising means for automatically applying and releasing said pressure.

Amdt. dated August 5, 2008

Reply to Office Action of March 6, 2008

25. **(Original)** Apparatus according to claim 22, wherein said apparatus is adapted for basing said first signal and said second signal on a portion of said area of skin close to but not including the part of the skin that is directly pressured by said transducer.

26. **(Original)** Apparatus accor4ing to claim 22, further comprising correction means for correcting said amplitude of said second signal to compensate for effects that may be caused by skin movement after said releasing of pressure.

27. **(Original)** Apparatus according to claim 26, wherein said correction means include a suitable algorithm embodied in said processor.

28. **(Original)** Apparatus according to claim 26, wherein said transducer comprises means for determining parameters including skin resistance to pressure as a function of depression of the skin responsive to the action of said transducer, and wherein said parameters are provided as inputs to said algorithm.

29. **(Original)** Apparatus according to claim 22, wherein said apparatus is adapted for maintaining a substantially constant skin-to-light sensor displacement during operation thereof.

30. **(Original)** Apparatus according to claim 22, further comprising a first temperature sensor for sensing skin temperature of a second skin area close to said first

Amdt. dated August 5, 2008

Reply to Office Action of March 6, 2008

mentioned area, wherein said second skin area is substantially unaffected by heat effects generated by said apparatus.

31. **(Original)** Apparatus according to claim 30, further comprising a second temperature sensor for sensing skin temperature of said first mentioned area, wherein said first mentioned skin area is substantially unaffected by heat effects generated by said apparatus.

32. **(Original)** A method for the diagnosis of physiological distress in a patient and for recovery of a patient from a state of physiological distress by measuring the filling time of blood vessels underlying an area of the skin of said patient, comprising the steps of: acquiring an image of skin area to be gauged for color illuminated with a non-modulated light from a light source to obtain a base-line color measurement, and determining the filling time of blood vessels in said area by comparison of the color of at least one more additional images of the gauged skin area with said base-line color measurement.

- 33. **(Original)** A method according to claim 32, comprising the steps of:
- i) positioning image acquisition means so that an area of the skin lies substantially within the focal plane thereof;

Reply to Office Action of March 6, 2008

ii) illuminating said area having an original color with light radiation from said light source at a level enabling said image acquisition means to discriminate between colors;

- iii) acquiring an image of said area with said image acquisition means;
- iv) deriving a signal from said image, said signal representative of the color of the said area;
  - v) storing the value of said signal which corresponding to said original color;
- vi) applying pressure on said area, said pressure having a magnitude and duration sufficient to expel blood out from said blood vessels, and for obtaining a signal having a value which corresponds to the maximum whitening of said area;
- vii) measuring the filling time by rapidly releasing said pressure and subsequently measuring and displaying the total period of time from maximum whitening until the value of said signal is substantially the same as said stored value; and
  - viii) determining the physiological distress from said total period of time.
- 34. **(Original)** A method according to claim 33, wherein the illumination is obtained from background light.
- 35. **(Original)** A method according to claim. 33, further including the step of verification of the measurement by displaying a graphical representation of the measured filling rate.

Reply to Office Action of March 6, 2008

36. **(Currently Amended)** A method according to claim 33, further comprising:

- i) repeating the measurement of the filling time at different time intervals;
- ii) storing the values of all measurements; and
- iii) displaying a graphical representation of the measured filling times as a function of time, thereby obtaining a derivative of the  $\frac{1}{2}$  blood vessel filling time on time d[CFT]/d[t], said derivative being an indication related to deterioration in the patient's physiological condition, or to the recovery of the patient from physiological distress.
- 37. **(Original)** A method according to claim 33, wherein the blood vessels are capillaries.
- 38. **(Original)** A method according to claim 33, wherein said signal is based on a portion of said area of skin close to but not including the part of the skin that is directly pressured.
- 39. **(Original)** A method according to claim 33, further comprising the step of correcting said signal to compensate for effects that may be caused by skin movement after said releasing of pressure.

Reply to Office Action of March 6, 2008

40. **(Original)** A method according to claim 39, wherein said correction is performed using a suitable algorithm.

41. **(Original)** A method according to claim 40, comprising the step of determining parameters including skin resistance to pressure as a function of depression of the skin responsive to the pressing, and providing said parameters as inputs to said algorithm.

42. **(Original)** A method according to claim 33, further comprising the step of measuring a first skin temperature of a second skin area close to said first mentioned area, wherein said second skin area is substantially unaffected by heat effects generated by said apparatus.

43. **(Original)** A method according to claim 42, further comprising the step of measuring a second skin temperature of said first mentioned area, wherein said first mentioned skin area is substantially unaffected by heat effects generated by said apparatus.

44. **(Original)** A method according to claim 43, further including the step of modifying the filing time in step (vii) according to the magnitude of at least one of said first temperature or said second temperature.

Reply to Office Action of March 6, 2008

45. **(Currently Amended)** Apparatus for the diagnosis of physiological distress in a patient and of recovery of a patient from physiological distress in accordance with changes in color of the patient's skin in response to an applied pressure on said skin, said pressure expelling blood from blood vessels subjacent to said skin, said apparatus comprising:

i) image acquisition means for acquiring an image of an area of the skin of said patient to be gauged for color, said image acquisition means being trained in the area so that it lies essentially within the focal plane of said image acquisition means;

ii) means for illuminating the area of the skin to be gauged for color with light radiation at a level sufficient to enable the image acquisition means to discriminate between colors, wherein the illumination means provides one of modulated light and non-modulated light;

iii) means for obtaining a baseline color measurement using the acquired image data corresponding to the color of said area when essentially no pressure is applied thereto; and

iv) means for comparing the color of said area with the base-line color measurement, thereby determining the filling time of blood vessels in said area after releasing said pressure.

46.-47. (Cancelled).

Reply to Office Action of March 6, 2008

48. **(Original)** Apparatus according to claim 45, wherein the image acquisition means is a video camera.

49. **(Original)** Apparatus according to claim 45, further comprising a transducer for applying pressure on said area and for obtaining a signal value, which corresponds to maximum whitening of said area.

50. **(Original)** Apparatus according to claim 45, wherein said apparatus is adapted for basing said color measurements on a portion of said area of skin close to but not including the part of the skin that is directly pressured.

51. **(Original)** Apparatus according to claim 45, further comprising correction means for connecting said color measurements to compensate for effects that may be caused by skin movement after said releasing of pressure.

52. **(Original)** Apparatus according to claim 51, wherein said correction means include a suitable algorithm embodied in said apparatus.

53. **(Original)** Apparatus according to claim 51, further comprising means for determining parameters including skin resistance to pressure as a function of depression of the skin responsive to the pressure action, and wherein said parameters are provided as inputs to said algorithm.

Amdt. dated August 5, 2008

Reply to Office Action of March 6, 2008

54. (Original) Apparatus according to claim 45, wherein said apparatus is

adapted for maintaining a substantially constant displacement between the skin and the

color measurement means during operation thereof.

55. **(Original)** Apparatus according to claim 45, further comprising a first

temperature sensor for sensing skin temperature of a second skin area close to said first

mentioned area, wherein said second skin area is substantially unaffected by heat effects

generated by said apparatus.

56. (Original) Apparatus according to claim 55, further comprising a second

temperature sensor for sensing skin temperature of said first mentioned area, wherein said

first mentioned skin area is substantially unaffected by heat effects generated by said

apparatus.

- 17 -

### **REMARKS**

Claims 1-45 and 48-56 are pending in the present application, claims 46-47 having been cancelled herein. The Office Action and cited references have been considered. Favorable reconsideration is respectfully requested.

Claims 11, 12 and 36 were rejected under 35 U.S.C. §112, second paragraph. The claims have been amended to provide proper antecedent basis by changing the term "the capillary filling time" to "the blood vessel filling time." Proper antecedent basis for "the blood vessel filling time" is provided in the claims. Withdrawal of this rejection is respectfully requested.

Claim 5 was rejected under 35 U.S.C. § 10 as being directed to non-statutory subject matter. Applicant has amended the claim in accordance with the Examiner's suggestion. Withdrawal of this rejection is requested.

Claims 45, 48, and 49 were rejected under 35 U.S.C. §101 as claiming the same invention as that of claims 34-36 of prior U.S. Patent No. 6,685,635. Claims 1-19, 21-24, 32-37, 46, and 47 were rejected on the ground of obviousness-type double patenting as being unpatentable over claims 1-4, 6-14, 16-28, and 30-34 of the '635 patent. Claim 45 has been amended to include the limitations of claims 36 and 47, thus overcoming the double patenting rejection under § 101. In addition, Applicant is submitting herewith a terminal disclaimer, disclaiming that portion of the term of the patent that issues from the present application that extends beyond the term of the '635 patent. This submission overcomes the obviousness-type double patenting rejection. Withdrawal thereof is respectfully requested.

Amdt. dated August 5, 2008

Reply to Office Action of March 6, 2008

In view of the above amendment and remarks, Applicant respectfully requests

reconsideration and withdrawal of the outstanding rejections of record. Applicant submits that

the application is in condition for allowance and early notice to this effect is most earnestly

solicited.

If the Examiner has any questions, he is invited to contact the undersigned at 202-

628-5197.

Respectfully submitted,

BROWDY AND NEIMARK, P.L.L.C.

Attorneys for Applicant(s)

By \_/Ronni S. Jillions/

Ronni S. Jillions

Registration No. 31,979

RSJ:me

Telephone No.: (202) 628-5197

Facsimile No.: (202) 737-3528

G:\BN\C\cohn\Shani1A\pto\2008-08-05AmendmentSHANI1A.doc

- 19 -

#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

	Atty	Docket: Shant=1A
n re Application of:	)	Conf. No.: <b>1250</b>
Haim SHANI et al.	)	Art Unit: <b>3768</b>
Appln. No.: <b>10/766,329</b>	)	Examiner: <b>E. D. Berhan</b> u
Filed: <b>January 29, 2004</b>	)	Washington, D.C.
For: NON-INVASIVE METHOD AND APPARATUS TO DETECT AND MONITOR EARLY MEDICAL	)	August 5, 2008
SHOCK, AND RELATED CONDITIONS	sĺ	

#### TERMINAL DISCLAIMER

Honorable Commissioner of Patents and Trademarks Washington, D.C. 20231

Sir:

Pursuant to 37 C.F.R. §1.321(b)(1)(iv) and other parts of Section 1.321, the terminal part of any patent granted on the above-identified application Serial No. 10/766,329 which would extend beyond the full statutory expiration date of U.S. Patent No. 6,685,635, is hereby disclaimed by the common assignee, Cardiosense, Ltd., the owner of the entire right, title and interest in the present application and said U.S. patent; and

It is hereby agreed that any patent so granted on the above-identified application Serial No. 10/766,329 shall be enforceable only for and during such period that the legal title to said patent shall be the same as the legal title to U.S. Patent No. 6,685,635, this agreement to run with any patent granted on the above-identified application Serial No. 10/766,329 and to be binding upon the grantee, its successors or assigns.

Filed: August 5, 2008

No disclaimer of any terminal part of any patent granted on the aboveidentified application Serial No. 10/766,329 prior to the expiration date of the full statutory
term of prior U.S. Patent No. 6,685,635, is made in the event that the prior patent later expires
for failure to pay a maintenance fee, is held unenforceable, is found invalid, statutorily
disclaimed in whole or terminally disclaimed under 37 C.F.R. §1.321, has all claims canceled
by reexamination certificate, or is otherwise terminated prior to expiration of its full statutory
term, whereby the present terminal disclaimer is effective only for the separation of legal title
as stated above. The "full statutory term" of the prior patent is the maximum granted term
thereof, as extended by law at any time, and this terminal disclaimer is being made without
waiver of the rights of applicants or the assignee to seek an extension of the patent granted on
the instant application in accordance with law, including but not limited to the right to an
extension under 35 U.S.C. §156 [see 37 C.F.R. §1.775(a)].

The intended scope of the present terminal disclaimer as set forth above and the non-alienation agreement above are intended to be the minimum required by law, and this document is to be considered to effectuate said intent. No admission is made that any claims of the present application are obvious over any prior patent.

The statutory disclaimer fee of \$65.00 for a small entity per 37 C.F.R. §1.20(d) is submitted herewith. In re of Appln. No. 10/766,329 Filed: August 5, 2008

Respectfully submitted,

BROWDY AND NEIMARK, P.L.L.C. Attorneys for Applicant(s)

By <u>/Ronni S. Jillions/</u>
Ronni S. Jillions
Registration No. 31,979

RSJ:me

Telephone No.: (202) 628-5197 Facsimile No.: (202) 737-3528

G:\BN\C\cohn\Shani1A\pto\2008-08-05TermDiscl.doc